# BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

**DOCKET NO. 2020-264-E DOCKET NO. 2020-265-E** 

In the Matter of:	)
Duke Energy Carolinas, LLC's Establishment of Solar Choice Metering	) ) )
Tariffs Pursuant to S.C. Code Ann. Section 58-40-20	REBUTTAL TESTIMONY OF LEIGH C. FORD FOR DUKE
36-40-20	) ENERGY CAROLINAS, LLC AND
Duke Energy Progress, LLC's Establishment of Solar Choice Metering	) DUKE ENERGY PROGRESS, LLC
Tariffs Pursuant to S.C. Code Ann. Section	)
58-40-20	)

1		I. <u>INTRODUCTION AND SUMMARY</u>
2	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
3	A.	My name is Leigh C. Ford, and my business address is 1201 Main Street, Suite
4		1180, Columbia, South Carolina 29201.
5	Q.	BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
6	A.	I have been engaged by Duke Energy Carolinas, LLC ("DEC") and Duke Energy
7		Progress, LLC ("DEP" and together with DEC, the "Companies") as a consultant
8		and I support the Companies' regulatory and legal teams in the implementation of
9		S.C. Act No. 62 of 2019's ("Act 62") new net energy metering ("NEM")
10		requirements.
11	Q.	DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS
12		PROCEEDING?
13	A.	Yes, I did.
14	Q.	ARE YOU INCLUDING ANY EXHIBITS IN SUPPORT OF YOUR
15		REBUTTAL TESTIMONY?
16	A.	Yes, I am including the settlement agreement that led to the establishment of the
17		Companies' current NEM programs as Ford Rebuttal Exhibit 1.
18	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
19	A.	The purpose of my rebuttal testimony is to address the South Carolina Office of
20		Regulatory Staff's (the "ORS") serious accusation, levied without any basis, that

the Companies have not or will not be forthright in this proceeding given the

Stipulation with North Carolina Sustainable Energy Association; Southern

Environmental Law Center on behalf of South Carolina Coastal Conservation

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League, Southern Alliance for Clean Energy, and Upstate Forever; Vote Solar; and Solar Energy Industries Association (the "Stipulating Parties") that was publicly filed in this proceeding on November 2, 2020 (the "Stipulation").

#### 4 Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

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First, it is important to note that the existing NEM programs arose from a settlement—a settlement to which the ORS was a party. In fact, that settlement contained very similar language to the language of which the ORS now complains. Second, the claim made by the ORS that the Companies will be anything other than forthright in this proceeding is baseless. The Companies first engaged the ORS on NEM-related matters under Act 62 over a year ago. Since that time, the Companies have held stakeholder processes, met with the ORS on numerous occasions, and engaged in discovery with the ORS on matters related to this proceeding. However—despite this year-long exchange of information—the ORS now claims that the memorandum of understanding (the "MOU") entered into by the Companies in this proceeding somehow prevents the Companies from being forthright and providing "useful information" in these dockets. To be clear, the Companies have been open and transparent with all intervenors in this proceeding, which has led to not one, but two stipulations addressing the concerns of both residential and non-residential customers. The record simply does not support the allegations of the ORS. However, the record does support this—the MOU represents a mutually-agreeable path forward for the Companies and various intervenors in this docket and has not prevented the Companies from being anything other than honest and forthright in this proceeding.

1		II. REBUTTAL TO WITNESS HORII
2	Q.	IS WITNESS HORII CORRECT IN IMPLYING THAT THE COMPANIES
3		WILL NOT BE TRANSPARENT AND OPEN IN THIS PROCEEDING
4		SIMPLY BY VIRTUE OF HAVING ENTERED IN TO A STIPULATION?
5	A.	Absolutely not. As described above, there is no basis in the record or otherwise to
6		assume that the Stipulation will restrict or prevent witness testimony or the sharing
7		of useful information in this proceeding.
8		ORS Witness Horii seems to take particular issue with the MOU underlying
9		the Stipulation, in which the Companies and the Stipulating Parties acknowledge
10		their shared belief that the Stipulation should be supported as the next generation
11		of NEM in South Carolina:
12 13 14 15 16 17		The Parties intend to work collaboratively to advance the terms of this MOU, including engaging other stakeholders on this matter in advance of filing the Solar Choice Tariffs in South Carolina and to obtain the PSCSC and the North Carolina Utilities Commission ("NCUC") approvals necessary to effectuate this MOU.
18 19 20 21 22 23 24 25 26		Advocacy. All Parties will support and advocate for the approval of the proposed resolution described in this MOU before media, stakeholders, social media outlets, the PSCSC, Office of Regulatory Staff, NCUC, and Public Staff. Regardless of whether the proposed resolution is approved by the PSCSC or the NCUC or both, no Party will publicly disparage the efforts of any other Party relating to the proposed resolution or this MOU.
27 28 29 30 31 32 33 34		Media. During ongoing negotiations and during subsequent stakeholder engagement (pre-filing or post-filing of NEM-related filings at the PSCSC or NCUC), the Parties agree to positively characterize each other's collaboration at public events and in the media (including social media) and will refer to this proposal as the next evolution of retail rate NEM and a major advancement to the solar industry and energy

efficiency efforts in South Carolina and/or North Carolina. The Parties agree to cooperate in good faith and in support of all required approvals of this effort and each other on this matter until the time the PSCSC and the NCUC issue a final order.

This language clearly states that the Companies and the Stipulating Parties will work to advance the MOU—as any parties to such an agreement would—but it does not at all suggest or condone withholding information during the course of the proceeding. While this is true for any and all proceedings before this Commission, it is particularly egregious here because the Companies have welcomed the opportunity to submit testimony, provide evidence, and answer any questions about this ground-breaking, innovative solution that—in its estimation—faithfully fulfills the legislative objectives for Solar Choice Metering Tariffs under Act 62.

In fact, the Companies have demonstrated their belief that open, honest, and forthright debate in this proceeding is key to establishing the next generation of Act 62 in South Carolina, as evidenced by their efforts to find common ground with Alder Energy Systems, LLC ("Alder Energy"), which resulted in an additional stipulation that was publicly filed in this docket on February 8, 2021. Clearly, the Stipulation did not restrict the Companies' sharing of useful information with Alder Energy, and it definitely does not do so with respect to the ORS.

# Q. PLEASE PROVIDE EXAMPLES OF HOW THE COMPANIES HAVE BEEN AND CONTINUE TO BE HONEST AND FORTHRIGHT IN THIS

**DOCKET.** 

A. As detailed in my direct testimony filed on November 2, 2020, the Companies engaged in an extensive stakeholder engagement process which impacted the

Companies' development of their filing in this proceeding. As a part of this stakeholder engagement process, the Companies held three stakeholder meetings as well as individual meetings with stakeholders. The Companies have also provided extensive data to numerous parties and held meetings between subject matter experts to explain the data.

## Q. DID THE COMPANIES HAVE MEETINGS, DISCUSSIONS, OR EMAILS

#### WITH THE ORS OUTSIDE OF THE THREE STAKEHOLDER

#### **MEETINGS?**

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Yes. The Companies began working with the ORS on Act 62 NEM-related matters on January 10, 2020. A call was held on that date, which included several representatives from the ORS and was initiated by the Companies and Vote Solar to begin discussing the stakeholder engagement process. Following the first two stakeholder meetings, the Companies consulted with the ORS and ORS's expert, E3, as they worked to develop their proposed Solar Choice Metering Tariffs. The ORS, E3, and the Companies had additional meetings on May 22, 2020, September 10, 2020, and December 16, 2020, to discuss the Companies' tariff development, tariff proposal, and agreement with the Stipulating Parties. Additionally, the Companies provided responses to 21 data requests from the ORS, including subparts, and sent multiple emails soliciting feedback and providing information to the ORS and E3. Most recently, from December 2020 through February 2021, the Companies engaged with the ORS to ensure ORS and E3 had all the information they requested. As these facts demonstrate, the ORS's allegation in this proceeding that the Companies are somehow bound to be anything other than forthright is

1	particularly	troublesome	given	the	robust	history	of	collaboration	and
2	communicati	ion in this proc	eeding.						

#### 3 Q. WERE THERE ANY OTHER STAKEHOLDER MEETINGS WHERE THE

#### 4 COMPANIES DISCUSSED SOLAR CHOICE PROGRAM OFFERINGS?

- 5 A. Yes. During the Companies' quarterly DSM/EE Collaborative meetings—which
- 6 the ORS attended—the Solar Choice Metering program and the concept of the yet-
- 7 to-be-proposed Solar EE programs were presented to the stakeholders for feedback.
- These meetings took place on November 5, 2020 and January 29, 2021.

#### 9 Q. IN YOUR EXPERIENCE, IS IT COMMON FOR SETTLEMENT

#### AGREEMENTS TO CONTAIN THE LANGUAGE WITH WHICH

#### 11 WITNESS HORII IS CONCERNED?

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- 12 A. Yes, absolutely. In fact, although worded slightly differently, there is similar
  13 language in the agreement (the "2015 Settlement") that the ORS entered into with
  14 the Companies, South Carolina Electric & Gas Co. (now Dominion Energy),
- 15 Central Electric Power Cooperative, Inc., The Electric Cooperatives of South
- Carolina, Inc., South Carolina Coastal Conservation League, the Southern Alliance
- for Clean Energy, the South Carolina Solar Business Alliance, LLC, Sustainable
- 18 Energy Solutions, LLC, Solbridge Energy, LLC, The Alliance for Solar Choice,
- and the Sierra Club in the previous NEM proceeding before the Commission in
- Docket No. 2014-246-E. The 2015 Settlement is attached as Ford Rebuttal
- **Exhibit 1** and it states that, "all Parties will support the terms of this Settlement
- 22 Agreement and will support the adoption by the Utilities and Commission of
- programs, tariffs, orders and other rulings consistent with the terms of this

Settlement Agreement and the Act. The Parties will take no action or advocate any position inconsistent with this commitment." The 2015 Settlement also states that "the Parties accept this Settlement Agreement as a whole and agree not to challenge any term or part for the duration of this Settlement Agreement, which expires January 1, 2021." It is difficult to understand the ORS's testimony discrediting the Companies in this proceeding given that the ORS has signed and agreed upon nearly identical commitments before the Commission—a position that is even more odd and troubling considering that neither the ORS, nor any other party in this docket, has produced any evidence to support Witness Horii's claim.

## 10 Q. DID THE ORS FILE TESTIMONY SUPPORTING THE 2015 11 SETTLEMENT IN DOCKET NO. 2014-246-E?

Yes, they did. Specifically, Kushal D. Patel—a consultant at E3 who was retained by the ORS to assist in developing a NEM methodology for valuing distributed energy resources in Docket No. 2014-246-E—stated in his settlement testimony that, "the methodology presented in the Settlement Agreement was developed in an open and collaborative stakeholder-driven process that was facilitated by ORS. It represents a high level of consensus among the intervening parties who in turn represent a diverse set of stakeholders." Additionally, at that time, I was the Manager in the Electric Department at the ORS. In that role, I filed settlement testimony on behalf of the ORS that stated, "this Settlement is the culmination of

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<sup>&</sup>lt;sup>1</sup> Direct Testimony of Kushal D. Patel, p. 12, lines 1-4, filed in Docket No. 2014-246-E on December 11, 2014.

1		extensive collaboration and compromise by parties with varying interests [and]
2		ORS supports this Settlement." <sup>2</sup>
3	Q.	IN DOCKET NO. 2014-246-E, BASED ON YOUR PARTICIPATION, DID
4		THE 2015 SETTLEMENT IMPACT ANY PARTY'S ABILITY TO SHARE
5		INFORMATION OR BE FORTHRIGHT DURING THE COURSE OF
6		THAT PROCEEDING?
7	A.	No, not that I am aware.
8	Q.	ARE YOU AWARE OF ANY REASON THAT THE ORS WOULD BE
9		CONCERNED IN THIS PROCEEDING ABOUT THE COMPANIES'
10		ABILITY TO SHARE INFORMATION OR BE FORTHRIGHT IN THE
11		PRESENT PROCEEDING?
12	A.	No. ORS Witness Brian Horii's troublesome allegations are prejudicial and
13		baseless—particular given the Companies' history of engagement with the ORS in
14		this proceeding. The MOU—as with the 2015 Settlement to which the ORS was a
15		party—does not require or condone withholding information necessary to
16		understand the settlement's terms. As described above, the Companies had, and
17		continue to have, open and honest conversations with all parties—including the
18		ORS.
19		III. <u>CONCLUSION</u>

DOES THIS CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?

A. Yes, it does.

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Q.

<sup>2</sup> Direct Testimony of Leigh C. Ford, p. 10, lines 1-2, filed in Docket No. 2014-246-E on December 11, 2014.

C. DUKES SCOTT EXECUTIVE DIRECTOR



NANETTES EDWARDS
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Shannon Bowyer Hudson Deputy Chief Counsel for ORS

December 11, 2014

#### VIA ELECTRONIC FILING

Jocelyn Boyd, Esquire Chief Clerk/Administrator Public Service Commission of South Carolina 101 Executive Center Dr., Suite 100 Columbia, SC 29210

Re: Petition of the Office of Regulatory Staff to Establish Generic Proceeding Pursuant to the Distributed Energy Resource Program Act, No. 236 of 2014, Ratification No. 241, Senate

Bill No. 1189

Docket No. 2014-246-E

Dear Ms. Boyd:

Please find enclosed a Settlement Agreement in the above-referenced matter. Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shannan B. Hudson

**Enclosure** 

cc: All Parties of Record

#### I. Parties to this Settlement Agreement

The parties to this Settlement Agreement (individually, the "Party" or collectively, the "Parties") are listed on the signature pages that follow. The following Parties may be referenced hereafter as follows: South Carolina Office of Regulatory Staff ("ORS"); Duke Energy Carolinas, LLC, Duke Energy Progress, Inc., South Carolina Electric & Gas Company (individually, the "Utility" and collectively, the "Utilities"); Central Electric Power Cooperative, Inc. and The Electric Cooperatives of South Carolina, Inc. (collectively, the "Coops"); South Carolina Coastal Conservation League, the Southern Alliance for Clean Energy, the South Carolina Solar Business Alliance, LLC, Sustainable Energy Solutions, LLC, Solbridge Energy, LLC, The Alliance for Solar Choice, and the Sierra Club (collectively, the "Solar Parties").

#### II. Introduction and Preamble

- 1. The Parties believe that this Settlement Agreement is consistent with both the spirit and the letter of Act 236 ("the Act").
- 2. The Parties acknowledge and agree that this Settlement Agreement is a product of negotiations and includes compromises made in order to reach a comprehensive settlement that all Parties can support. The Parties accept this Settlement Agreement as a whole and agree not to challenge any term or part for the duration of this Settlement Agreement, which expires January 1, 2021. However, Parties are not precluded from participating in future proceedings to set and adopt policies which will be implemented after the expiration of this Settlement Agreement. If any term or part of this Settlement Agreement is not adopted, a Party reserves the right to withdraw from the Settlement Agreement pursuant to the steps in Section IV.2.
- 3. The Solar Parties take the position (a) that due to environmental and other factors, if all inputs are fully quantified, the true value of solar would be such that each kilowatt hour ("kWh") of energy generated by a solar customer-generator, and intended primarily to offset part or all of the customer-generator's own electrical use, would be at least as valuable, for ratemaking purposes, as a kWh of power supplied to that customer from the Utility grid ("1:1 Rate"), and (b) that no charges specific to solar customer-generators should be levied.
- 4. The Solar Parties, however, acknowledge that quantifying the value of certain benefits of solar power would be difficult and contentious at this time. In the interest of settlement, the Solar Parties are willing to agree to forego quantifying the value of certain benefits of solar power so long as the 1:1 Rate can be achieved.
- 5. The ORS, Utilities, and Coops take the position (a) that S.C. Code §§ 58-40-10, et seq., ("the Net Metering Statute") requires net metering rates to be set based on the net cost to serve customergenerators; (b) that it would constitute a subsidy to Distributed Energy Resource ("DER") customers to value DER generation at a level higher than is indicated by the benefits quantifiable under the known and measurable standard for ascertaining costs in a ratemaking context, and (c) that by law any subsidy for DER generation should be captured in the Utility's DER Program ("DER Program") as a DER expense to be measured and recovered subject to the cost caps and other limitations that apply under S.C. Code § 58-39-110.
- 6. The ORS, Utilities, and Coops, however, acknowledge that those provisions of the Act were intended and designed to incent the development of DER such as solar customer-generation, in South Carolina. In the interest of settlement, the Utilities are willing to agree to incent net metered DER

generation to achieve the 1:1 Rate during the term of this Settlement Agreement and to recover such incentive costs from customers as a component of the Utilities' respective DER Programs, subject to the limitations of South Carolina law.

- 7. As a practical means to bridge the differences between the Parties in their positions in this proceeding and without any Party waiving or abandoning its positions related to the proper interpretation or application of the Net Metering Statute or any other matter set forth in this proceeding, the Parties have agreed to resolve the matters at issue in this proceeding by agreeing as follows:
  - a. The 1:1 Rate shall be preserved for the term of this Settlement Agreement as set forth below;
  - b. The ORS Methodology, as defined below, shall be used to compute the value of DER generation;
  - c. The difference between the value of DER generation, as computed using the ORS Methodology, and the 1:1 Rate shall be treated as a DER program expense and collected accordingly through the fuel clause. This difference shall not be recovered through base rates:
  - d. The other terms of this Settlement Agreement, as set forth below, detail how this arrangement will be carried out.

#### III. Elements of Settlement Proposal

- 1. Within 60 days of the effective date of this Settlement Agreement, the Utilities will each file with the Public Service Commission of South Carolina ("Commission") applications for the approval of the initial DER Program consistent with the terms of this Settlement Agreement and the terms and conditions of the Act. Utility DER Programs will include provisions for incentives to residential and small commercial customers and will make new tariffs, amendments to existing tariffs, and/or programs available to customer-generators with production of less than 20 kilowatt ("kW") ("Residential/Small Commercial"). DER Programs will include the following provisions:
  - a. The Utilities shall propose to make available DER incentives available to Residential/Small Commercial customer-generators with production of less than 20 kW ("Residential/Small Commercial DER Incentives") that provide these customergenerators with an investment incentive (i.e., an up-front incentive or rebate) and/or a fixed, production-based incentive payment. These incentives shall provide pricecertainty to the customer-generator over a defined term.
  - b. In aggregate and over the DER planning horizon, the proposed Residential/Small Commercial DER Incentives shall be reasonably sufficient to enable the Utilities to meet the Residential/Small Commercial customer-generator adoption targets enumerated in S.C. Code § 58-39-130 (C)(2).
  - c. The Utilities shall propose to make Residential/Small Commercial DER Incentives available to all qualifying customer-generators on a non-discriminatory basis subject to the terms and provisions of general law, including the Act, and any limitations contained therein, up to a cumulative capacity no less than 0.25% of the Utility's previous five-year average South Carolina retail peak demand, as defined by the Act.

- d. The Utilities shall propose to make Residential/Small Commercial DER Incentives available retroactively to customer-generators who interconnect between January 1, 2015, and the date on which the Commission approves each Utility's DER application.
- e. To be eligible for the Residential/Small Commercial DER Incentive, the customergenerator must agree to the installation of metering equipment, as specified by the Utility, sufficient to read the production of the facility.
- f. The Utilities shall include in their DER applications a provision that allows customergenerators the option, at the expiration of the term of a particular DER Incentive, to request and receive service under any available schedule or tariff for which they qualify.
- g. Nothing herein is intended to obviate the Utilities' statutory obligation as enumerated in S.C. Code § 58-39-130 (C)(2)(b) to provide incentives to customers to purchase or lease renewable energy facilities up to 1,000 kW.
- h. The rate and tariff structure under which Residential/Small Commercial DER Incentives are to be provided shall be determined in the proceedings to consider the DER Program filings of the Utilities.
- 2. Within 60 days of the adoption by the Commission of a final, unappealable order that approves and adopts the terms of this Settlement Agreement as the generic net metering methodology required by S.C. Code § 58-40-20(F)(4) of the Act, the Utilities will each file with the Commission separate applications for approval of the following:
  - a. Net Metering Tariffs: New net metering tariffs (the "Net Metering Tariffs") shall incorporate the terms of this Settlement Agreement as well as the terms defined in S.C. Code § 58-40-10, including allowable customer-generator system size up to 1,000 kW, net metering capacity cap, annual kWh credit reconciliation, and other terms and conditions required by the Act for net metering tariffs adopted under its provisions. Settlement Agreement Attachment B is illustrative of the Net Metering Tariffs and the required tariff components.
  - b. **Net Metering Incentives:** A Net Metering Incentive, funded through a DER Program ("DER NEM Incentive"), shall be applied to qualifying net metering customers sufficient to make such customer-generators' bills equal to the bills they would have received if the power generated by their DER facilities were valued at the 1:1 Rate.
    - i. The DER NEM Incentive will be applied to customer-generators receiving service under the Net Metering Tariffs prior to January 1, 2021. DER NEM Incentives shall be available to these customers through December 31, 2025, or until these customers elect to receive service under a different tariff, whichever occurs first.
    - ii. Net Metering Tariffs shall reference any Commission order(s) approving the terms of this Settlement Agreement which addresses the calculation of DER NEM Incentives. DER NEM Incentives will not be separately stated on each net metering customer's bill. All DER NEM Incentives shall be treated as Incremental Costs as defined in S.C. Code § 58-39-140.
    - iii. Any DER Program must conform to the terms of this Settlement Agreement to trigger the requirement under this Settlement Agreement that the Utilities implement its Net Metering Tariff and DER Program. The Utilities shall propose

and seek in good faith to adopt DER Programs that provide DER NEM Incentives for net metering customers representing up to 2% of the Utility's five-year average South Carolina retail peak demand, which is the statutory cap on net metering customers under the Act, or until the expiration of this Settlement Agreement, whichever occurs first.

- 3. The net metering and DER program applications will be considered in separate, Utility-specific dockets before the Commission. All issues related to net metering rates and DER programs not addressed in this Settlement Agreement will be addressed in these Utility-specific proceedings, as appropriate. All interested parties shall have the right to fully participate in these proceedings. Utility cost recovery from customers related to net metering and DER programs shall be reviewed and determined in each Utility's fuel cost proceeding.
- 4. All Parties will support the terms of this Settlement Agreement and will support the adoption by the Utilities and Commission of programs, tariffs, orders and other rulings consistent with the terms of this Settlement Agreement and the Act. The Parties will take no action or advocate any position inconsistent with this commitment.
- 5. If the Utilities fail to comply with their obligations under Section III.2 above, the other Parties to this Settlement Agreement may seek a rule to show cause or other order of the Commission compelling the Utilities to take the action required or ordering other relief necessary or appropriate in the circumstances.
- 6. If any of the Parties to this Settlement Agreement other than a Utility fail to comply with their obligations under Section III.4 above, then the Utility shall notice the Parties of their intent to treat this Settlement Agreement as null and void and forego, withdraw, terminate or seek to cancel any applications, programs, tariffs, filings, orders or other proceedings undertaken in reliance on this Settlement Agreement. Within five (5) days of receiving notice of the Utility's intent, the Parties may petition the Commission for relief.
- 7. This Settlement Agreement shall expire on January 1, 2021 (the "Settlement Expiration Date"). Subject to the regulatory authority of the Commission and ORS, the Utilities will adopt Net Metering Tariffs that are consistent with the terms of this Settlement Agreement and will make them available to customers on a first-come, first-served basis until the Settlement Expiration Date, and subject to the caps on DER program expenses contained in S.C. Code § 58-39-150 of the Act.
- 8. The Parties have convened and developed, according to a process managed by ORS and its consultant Energy + Environmental Economics ("E3"), a specific, standardized methodology for assessing costs and benefits of the net metering program. The standardized methodology is reflected in Settlement Agreement Attachment A (the "Methodology"). The Methodology includes all categories of potential costs or benefits to the Utility system that are capable of quantification or possible quantification in the future. Where there is currently a lack of capability to accurately quantify a particular category and/or a lack of cost or benefit to the Utility system, that category has been included in the Methodology as a placeholder. (For example, Avoided CO<sub>2</sub> Emission Cost is included as a placeholder. A zero monetary value will be used until state or federal laws or regulations result in an avoidable cost on Utility systems for these emissions.) Placeholder categories will be updated and included in the calculation of costs and benefits of net metering if and when capabilities to reasonably

- quantify those values and quantifiable costs or benefits to the Utility system in such categories become available.
- 9. As set forth below, the Utilities shall use the following methodology to compute the net estimated under-recovered (lost revenue) or over-recovered revenue (net benefit) from net metering customers under existing rate structures, based on the Utility's cost of service study within its last general rate case. The formula used to apply the Methodology shall be as follows:
  - a. To determine the under-recovered or over-recovered revenue from the net metering customer:
    - i. Compute what the actual or a representative customer's bill would have been under the applicable standard rate, without consideration of the production of the DER.
    - ii. Subtract from that amount the actual or a representative customer's estimated bill under the applicable standard rates with consideration of the production of the DER.
    - iii. Subtract from that amount the net benefits delivered by the DER as computed according to the Methodology and based upon the production of the DER.
    - iv. If the final number is positive, the result is the "under-recovered revenue from the net metering customer."
    - v. If the final number is negative, the result is the "over-recovered revenue from the net metering customer."
  - b. For under-recovered revenue, calculate the amount of any DER NEM Incentive to be applied to allow a net metering customer to achieve the 1:1 Rate for gross production from the net metering facility.
  - c. For over-recovered revenue, calculate the credit, if any, to be applied to a net metering customer.
    - i. No DER NEM Incentive shall be provided when the net metering customer receives a credit.
- 10. The Utilities shall use actual customer-generator energy production data to the maximum extent available to calculate the costs and benefits of net metering on their system using the Methodology. In the absence of actual customer metered production data from a customer-generator's DER, the Utilities shall be allowed to estimate DER energy production for purposes of implementing the Methodology, consistent with best practices relating to such estimation and modeling.
- 11. The costs and benefits of net metering and the required amount of the DER NEM Incentive shall be computed and updated annually coincident in time with the Utility's filing under the fuel clause.
- 12. Each Utility shall file reports with the Commission and copy ORS when the following participation levels are reached to identify and illustrate the costs unrecovered, if any, arising from customer adoption of net metered DER generation through December 31, 2020: (1) 0.5%; (2) 1.0%; (3) 1.5%; and (4) 2.0% of the Utility's previous five-year average South Carolina retail peak demand, as defined by the Act.
- 13. The Parties acknowledge that the establishment of appropriate net metering rates is complicated by current Utility ratemaking methodologies which collect a substantial part of a

- Utility's fixed cost of providing service to customers through volumetric or kWh charges. The Utilities and any interested parties may participate in the study of these issues to be conducted by ORS as required by S.C. Code § 58-27-1050.
- 14. Each Utility shall monitor and track ongoing unrecovered DER costs or unpaid benefits associated with the net metering program after the Settlement Agreement Expiration Date. The Utilities shall not propose any new separately enumerated charges or fees to be imposed specifically on customer-generators before the Settlement Agreement Expiration Date, and no standby service charges shall be imposed on customer-generators pursuant to the Utilities' Net Metering Tariffs before the Settlement Agreement Expiration Date. A Utility is not precluded, however, from seeking a change in general rates that apply in an identical manner to customer-generators and non-participating customers prior to reaching the 2% participation cap or the Settlement Expiration Date. If a general rate change is sought prior to the Settlement Expiration Date, the general rate change shall not include DER Program costs.
- 15. A customer-generator taking service under any net metering rates resulting from this Settlement Agreement shall have the right to remain on that rate, according to the terms and conditions specified in this Settlement Agreement through December 31, 2025, including protection against any new separately enumerated charges or fees that would only apply to DER customer-generators. The right to remain on a Net Metering Tariff shall be assignable by the customer-generator to subsequent owners of the premises to which the electrical generating system is connected and providing electrical service. The Utilities agree to file applications in a specific docket with the Commission for new net metering tariffs to replace the Net Metering Tariffs based on this Settlement Agreement no later than January 31, 2020; all interested parties shall have the right to fully participate in these proceedings.

#### IV. Miscellaneous

- 1. The Parties acknowledge that ORS has an on-going statutory mandate from the General Assembly of the State of South Carolina to protect the interest of the public in all matters related to the electric utility rates and terms and conditions of service. Nothing in this Settlement Agreement shall be construed to limit ORS in its fulfillment of this mandate.
- 2. This written Settlement Agreement contains the complete agreement of the Parties. The Parties agree that signing this Settlement Agreement does not constrain, inhibit or impair their arguments or positions in future proceedings. If the Commission declines to approve the agreement in its entirety, then any Party desiring to do so may withdraw from the agreement without penalty, within three (3) days of receiving notice of the decision, by providing written notice of withdrawal via electronic mail to all parties in that time period.
- 3. The Parties agree that the terms of this Settlement Agreement shall have no precedential value and shall not be cited in legal or regulatory proceedings except to enforce the terms of this Settlement Agreement.
- 4. This Settlement Agreement does not limit the rights of the signatories with respect to their ability to participate in a proceeding wherein the Utilities propose to populate the Methodology with Utility-specific data and information, or their ability to participate in

- Commission review of Utility DER program offerings and proposals except as specified herein.
- 5. This Settlement Agreement is binding on the Parties only. It creates no rights in third parties nor are there third party beneficiaries to it. Only Parties who are signatories may make any claim under this Settlement Agreement.
- 6. The Parties agree to stipulate into the record before the Commission this Settlement Agreement. The Parties agree to stipulate into the record before the Commission the pre-filed testimony and exhibits of each Parties' witness(es) without objection, change, amendment or cross-examination with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction. The Parties, however, reserve the right to engage in redirect examination of witnesses as necessary to respond to issues raised during the examination of their respective witnesses, if any, by the Commission or any non-settling party or by subsequently filed testimony.
- 7. The Parties agree this Settlement Agreement is reasonable, in the public interest, and in accordance with law and regulatory policy.
- 8. Further, ORS is charged with the duty to represent the public interest of South Carolina pursuant to S.C. Code § 58-4-10(B) (Supp. 2013). S.C. Code § 58-4-10(B)(l) through (3) reads in part as follows:
  - "...'public interest' means a balancing of the following:
  - (1) Concerns of the using and consuming public with respect to public utility services, regardless of the class of customer;
  - (2) Economic development and job attraction and retention in South Carolina; and
  - (3) Preservation of the financial integrity of the State's public utilities and continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services."
- 9. This Settlement Agreement shall be effective upon execution of the Parties and shall be interpreted according to South Carolina law.
- 10. This Settlement Agreement shall bind and inure to the benefit of each of the signatories hereto and their representatives, predecessors, successors, assigns, agents, shareholders, officers, directors (in their individual and representative capacities), subsidiaries, affiliates, parent corporations, if any, joint ventures, heirs, executors, administrators, trustees, and attorneys.
- The above terms and conditions fully represent the agreement of the Parties hereto. Therefore, each Party acknowledges its consent and agreement to this Settlement Agreement by authorizing its counsel to affix his or her signature to this document where indicated below. Counsel's signature represents his or her representation that his or her client has authorized the execution of the Settlement Agreement. Facsimile signatures and e-mail signatures shall be as effective as original signatures to bind each Party. This document may be signed in counterparts, with the various signature pages combined with the body of the document constituting an original and provable copy of this Settlement Agreement.

In witness whereof see our signatures below:

[SIGNATURE PAGES TO FOLLOW]

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## FORD REBUTTAL EXHIBIT 1 Page 27

#### Settlement Agreement Attachment A

## Net Energy Metering ("NEM") Methodology

- +/- Avoided Energy
- +/- Energy Losses/Line Losses
- +/- Avoided Capacity
- +/- Ancillary Services
- +/- Transmission and Distribution ("T&D") Capacity
- +/- Avoided Criteria Pollutants
- +/- Avoided CO<sub>2</sub> Emission Cost
- +/- Fuel Hedge
- +/- Utility Integration & Interconnection Costs
- +/- Utility Administration Costs
- +/- Environmental Costs
- = Total Value of NEM Distributed Energy Resource

The following table details the components of the Methodology.

Methodology Component	Description	Calculation Methodology/Value
+/- Avoided Energy	Increase/reduction in variable costs to the Utility from conventional energy sources, i.e. fuel use and power plant operations, associated with the adoption of NEM.	Component is the marginal value of energy derived from production simulation runs per the Utility's most recent Integrated Resource Planning ("IRP") study and/or Public Utility Regulatory Policy Act ("PURPA") Avoided Cost formulation.
+/- Energy Losses/Line Losses	Increase/reduction of electricity losses by the Utility from the points of generation to the points of delivery associated with the adoption of NEM.	Component is the generation, transmission, and distribution loss factors from either the Utility's most recent cost of service study or its approved Tariffs. Average loss factors are more readily available, but marginal loss data is more appropriate and should be used when available.
+/- Avoided Capacity  Increase/reduction in the fixed costs to the Utility of building and maintaining new conventional generation resources associated with the adoption of NEM.		Component is the forecast of marginal capacity costs derived from the Utility's most recent IRP and/or PURPA Avoided Cost formulation. These capacity costs should be adjusted for the appropriate energy losses.
H/- Ancillary Services  Increase/reduction of the costs of services for the Utility such as operating reserves, voltage control, and frequency regulation needed for grid stability associated with the adoption of NEM.		Component includes the increase/decrease in the cost of each Utility's providing or procurement of services, whether services are based on variable load requirements and/or based on a fixed/static requirement, i.e. determined by an N-1 contingency. It also includes the cost of future NEM technologies like "smart inverters" if such technologies can provide services like VAR support, etc.

## FORD REBUTTAL EXHIBIT 1

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## Settlement Agreement Attachment A

Methodology Component	Description	Calculation Methodology/Value		
+/- T&D Capacity  Increase/reduction of costs to the Utility associated with expanding, replacing and/or upgrading transmission and/or distribution capacity associated with the adoption of NEM.		Marginal T&D distribution costs will need to be determined to expand, replace, and/or upgrade capacity on each Utility's system. Due to the nature of NEM generation, this analysis will be highly locational as some distribution feeders may or may not be aligned with the NEM generation profile although they may be more aligned with the transmission system profile/peak. These capacity costs should be adjusted for the appropriate energy losses.		
+/- Avoided Criteria Pollutants	Increase/reduction of SOx, NOx, and PM10 emission costs to the Utility due to increase/reduction in production from the Utility's marginal generating resources associated with the adoption of NEM generation if not already included in the Avoided Energy component.	The costs of these criteria pollutants are most likely already accounted for in the Avoided Energy Component, but, if not, they should be accounted for separately. The Avoided Energy component must specify if these are included.		
+/- Avoided CO <sub>2</sub> Emissions Cost	Increase/reduction of CO <sub>2</sub> emissions due to increase/reduction in production from each Utility's marginal generating resources associated with the adoption of NEM generation.	The cost of CO <sub>2</sub> emissions may be included in the Avoided Energy Component, but, if not, they should be accounted for separately. A zero monetary value will be used until state or federal laws or regulations result in an avoidable cost on Utility systems for these emissions.		
H/- Fuel Hedge Increase/reduction in administrative costs to the Utility of locking in future price of fuel associated with the adoption of NEM.		Component includes the increases/decreases in administrative costs of any Utility's current fuel hedging program as a result of NEM adoption and the cost or benefit associated with serving a portion of its load with a resource that has less volatility due to fuel costs than certain fossil fuels. This value does not include commodity gains or losses and may currently be zero.		
+/- Utility Integration & Interconnection Costs  Increase/reduction of costs borne by each Utility to interconnect and integrate NEM.		Costs can be determined most easily by detailed studies and/or literature reviews that have examined the costs of integration and interconnection associated with the adoption of NEM. Appropriate levels of photovoltaic penetration increases in South Carolina should be included.		
+/- Utility Administration Costs	Increase/reduction of costs borne by each Utility to administer NEM.	Component includes the incremental costs associated with net metering, such as hand billing of net metering customers and other administrative costs.		
+/- Environmental Costs	Increase/reduction of environmental compliance and/or system costs to the Utility.	The environmental compliance and/or Utility system costs might be accounted for in the Avoided Energy component, but, if not, should be accounted for separately. The Avoided Energy component must specify if these are included. These environmental compliance and/ or Utility system costs must be quantifiable and not based on estimates.		

Settlement Agreement Attachment B

#### **Example of Net Energy Metering Generic Tariff Components**

The standard Net Energy Metering ("NEM") tariff will contain the following components:

- 1. Availability provisions;
- 2. General eligibility and technical service-related provisions;
- 3. Monthly rate provisions relating to administrative charges and/or excess energy credit calculations;
- 4. Terms;

Customers electing service under (<u>Tariff Name</u>) or after (<u>Effective Date of New Tariff</u>) are eligible to remain on (<u>Tariff Name</u>) until December 31, 2025, or until such time the customer elects to terminate service under (<u>Tariff Name</u>), whichever occurs first. The rates set forth here are subject to Commission Order No. \_\_\_\_, in Docket No. 2014-246-E entered under the terms of S.C. Code § 58-40-20(F)(4). Eligibility for this rate will terminate as set forth in that Order. The value of distributed energy resource generation shall be computed using the methodology contained in Commission Order No. \_\_\_\_, in Docket No. 2014-246-E and updated annually. The value for (<u>Year</u>) is \$\_\_\_\_ per kilowatt hour ("kWh").

If a customer-generator's energy consumption exceeds the electricity provided by the customer-generator during a monthly billing period, the customer-generator shall be billed in kWh for the net electricity supplied by the Utility.

If a customer-generator's energy generation exceeds the electricity provided by the Utility during a monthly billing period, the customer-generator shall be credited for the excess kWh generated during that billing period.

Excess energy not used in the current billing month to reduce billed kWh usage shall be accumulated and used to reduce usage in future months. Any accumulated excess energy not used to reduce billed kWh usage shall be paid to the customer-generator each (Date of Zeroing Out) at the Utility's avoided cost for qualified facilities, zeroing-out the customer-generator's account of net excess kWh credits.

Service on (<u>Tariff Name</u>) will be closed to new participants as of January 1, 2021, or after statutory caps described in S.C. Code § 58-39-130 have been reached, whichever occurs first.

Customers who elect NEM service after January 1, 2021, will receive service in accordance with the NEM tariff in effect the time at which the customer requests NEM service.

## FORD REBUTTAL EXHIBIT 1 Page 30

#### Settlement Agreement Attachment B

- 5. Language specifying that the customer is responsible for the applicable customer charge/basic facilities charge and any applicable demand charges or extra facilities charges associated with standard rate (non-NEM), etc.;
- 6. Metering requirement provisions;
- 7. Safety, interconnection and inspection requirements;
- 8. Power factor provisions;
- 9. Contract period provisions;
- 10. Any other standard tariff language, as required.